Remarks:

The applicant has amended the claims to meet the objections under 35 U.S.C. §112. The applicant respectfully traverses the objection that the phrase "low charge retaining coating" does not provide one of ordinary skill in the art guidance as how to determine when a composition is considered low charge retaining.

Attached as Exhibit 1 to this response is a sample specification for electrostatic shielding bags from Seagate. The applicant respectfully calls the examiner's attention to Section 7.3 outlining a procedure for testing whether a bag has a suitable low charge retention or a static dissipative surface. These terms are well known in the art and there are a variety of similar specifications designed to determine whether the electrostatic shielding bag will have low charge retention properties.

As called out on page 5 of the specification, low charge retention properties are conductivity of between 10^{-3} and 10^{-10} Siemens, preferable 10^{-6} Siemens.

The applicant also respectfully traverses the examiner's objection to the phrase "dimensionally stable." It is well known in the art that certain polymers are dimensionally stable under heat, that is they do not expand or contract significantly. These polymers include the biaxly oriented or entered nylon described in the specification on page 5 and as well as other polymers such as PET, and polyester. The attached Exhibit 2 comprises website information from chemical companies, (Goodfellow and Ticona); a chemical trade group, (Ampef); and a film graphics company, (Vernon), illustrating the use of this phrase.

The applicant has amended claim 1 to clarify the distinctions between Golike et al, (US 5,091,299) and the instant invention. An important and significant difference between the claims and the '299 structure is that the '299 material is a "buried metal" product. That is, the metal is

not at or near the surface of the material but is buried beneath an insulative layer of polymer. Claim 1 has been amended to highlight this distinction. The structure outlined in claim 1 provides enhanced performance over the structure in the '299 patent. For example, metal to metal bonds are very weak, and the structures frequently delaminate. As illustrated in the data attached to the affidavit of Brent Beamer, Exhibit 3, delamination and cracking of metallized layers that attach one metal layer to another. A crack in the metallized layers defects the ability of the layer to act as a moisture barrier is a problem with structures such as the Golike structure.

In addition, the structure in the '299 patent must use a conductive loaded polymer to attempt to obtain the low charge retaining characteristics that are desirable in these products. The structure of the applicant's invention retains the low charge retention by having the metallized surface, the second polymer moisture barrier is adjacent to and in contact with the low charge retaining coating. Furthermore, the '299 structure will not achieve the moisture barrier called for because of the metal to metal bond in the product. See Exhibit 3, Affidavit of Brent Beamer. Cracks in the coating caused by poor adherence between the two metallized layer will allow moisture to migrate through these cracks.

The applicant respectfully traverses the rejection under 35 U.S.C. §103.

1. Claims 1–6, 8-10, 27 and 28 were rejected under 35 U.S.C. §103(a) as unpatentable over Mott (US 4,756,414) in view of White (US 4,699,830). Mott teaches a metal in electrostatic shielding film for use in ESD bags. White teaches the use of laminate structures with two metal layers. As noted by the examiner, White teaches that the layers are selected in order to allow light transmission. The amount of metallization in these layers is sufficiently thin, but the material will be transparent.

Mott is a metal-in barrier material. As such it has high charge retention because the metallized material is not located near the surface of the material, but is instead separated from the surface by a dielectric polymer layer. White teaches that the metal layer should be sufficiently thin to allow light transmission, therefore, teaches away from using metallized layers of sufficient thickness to provide a moisture barrier. It's well known in the art that White further teaches obtaining surface resistivity by controlling the thickness of the barried metal layer, Column 4, lines 35-45. The top coat taught by White is a nonconductive acrylic, Column 6, line 22-23. Therefore White teaches away from achieving moisture barrier protection by sufficiently thick metallization, and teaches away from the use of a metal out structure as called for in the applicant's patent.

2. Claim 7 is rejected under 35 U.S.C. §103 as unpatentable over Mott in view of White and further view of Ohlbach (US 4,293,070). As noted above, Mott and White do not suggest the claimed combination of duel metallization, metal-out moisture barrier film. Indeed, they teach away from it. Ohlbach is said to teach coating a surface with carbon black, in order to obtain the desired degree of conductivity.

   Ohlbach teaches away from using the carbon loaded polymer as the low charge retaining coating as set forth in claim 7 describing polymers containing conductive carbon in bags as "costly and inadequate". Ohlbach, column 1, line 33-34. Ohlbach teaches having a conductive surface made from a conductive carbon, and not a carbon loaded material.

3. Claim 11 is rejected under 35 U.S.C. §103(a) as being unpatentable over Mott (US 4,756,414) in view of White (US 4,699,830) and in further view of Akao (US

4,906,517). White is said to teach that a protective layer preferable as an acrylic based coating. White is said not to teach that the resistivity can be controlled by adding carbon to the protective layer. Indeed, White teaches controlling resistivity by changing the thickness of the metal layer beneath the protective coating. White therefore teaches away from adding conductive particles to the surface polymer as a means of controlling the resistivity of the protective layer. There is nothing in White or Akao to suggest combining the teaching of these patents. Akao indeed teaches a single metal layer.

4. Claims 1, and 23-27 were rejected under 35 U.S.C. §103(a) as being unpatentable over White (US 4,699,830) in view of Dahringer et al, (US 5,689,878). White is discussed above. Dahringer is said to disclose an assembly including multiple layers of polymeric material that provide diffusion barrier properties and a metallic layer that provide diffusion barrier properties and EMI shielding properties. The metallic layer is preferably a laminated foil.

   There is nothing to suggest combining the teachings of Dahringer and White. Indeed White teaches away from use of a foil like material in that White teaches the desirability of transparency, and both a thin metallic layer.

5. Claims 1, 14-18, 22, 27, and 29 are rejected under 35 U.S.C. §103(a) as being unpatentable over Havens, (US 5,180,615) in view of White (US 4,699,830) and Dahringer (US 5,689,878). Havens is said to disclose a single metallized layer structure. Havens does not disclose a barrier material. Indeed, as set forth in Column 3, lines 46-51, Havens teaches the metallized layer should be sufficiently thin, that the material be transparent. Such a material will not act as a barrier material under any

circumstances. This is the same teaching as in White, further which therefore teach away from the metal out barrier film of this invention. Dahringer is discussed above.

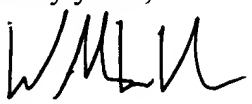
6. Claim 19 was rejected under 35 U.S.C. §103 as being unpatentable over Havens, (US 5,180,615) in view of White, (US 4,699,830) and Dahringer, (US 5,689,878) as applied to claims 1, 14-18, 22, 27 and 29 above, in further view of Rayford, (US 4,738,882). Havens, in view of White and Dahringer has been discussed above. Rayford is said to teach an antistatic laminated sheet material for the protection of electronic components from electrostatic charges comprising a metal layer and an insolating layer. There is no suggestion in Rayford or Havens to combine these teachings. Rayford also suggests in Column 3, lines 7-13 that the metallization layer must be kept thin enough to permit at least 40% light transmission. Such a material will not act as a moisture barrier.

The applicant concedes that there are a variety of laminate structures used in the electrostatic industry. As described in Havens, (US 5,180,615) these structures are typically either a metal in structure or a metal out structure. There are also barrier materials. There are, however, not materials which combine moisture barrier protection offered by the inventor's product together with the electrostatic shielding property of the inventor's invention. As noted in the background of the invention section, the prior art fails to provide adequate moisture barrier together with a low charge retaining surface.

Attached hereto is a marked-up version of the changes made to the Claims by the current amendments. The attached page is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE.**"

The applicant respectfully submits that the amended claims are in condition for allowance.

Very truly yours,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claims 1, 2, 3, 8, 9, 10, 13, and 23 were amended:

1. (amended) A low charge retaining film material for packaging that protects items from electrostatic discharge and from moisture caused corrosion said material comprising:
    a) a heat sealable static dissipative polymer;
    b) a first moisture barrier attached to the heat sealable static dissipative polymer;
    c) a second moisture barrier attached to the first moisture barrier, said second moisture barrier having a metallized surface.
    d) a low charge retaining coating attached to the metallized surface of the second moisture barrier.
2. (amended) A low charge retaining film material for packaging that protects items from electrostatic discharge and from moisture caused corrosion, said material comprising:
    a) a heat sealable static dissipative polymer;
    b) A first polymeric moisture barrier [with] have two surfaces, a first metallized surface and a second nonmetallized surface, said first polymeric moisture barrier being attached to said heat sealable static dissipative polymer by a first tie layer;
    c) A second polymeric moisture barrier [with] having two surfaces, a first metallized surface and a second nonmetallized surface 1 said second nonmetallized surface of said second polymeric moisture barrier being attached to said first polymeric moisture barrier by a second tie layer and;
    d) A low charge retaining coating attached to said first metallized surface of said second metallized polymeric moisture barrier.

3. (amended) A material as in claim 2 wherein the first and second tie layers [is] are adhesive.

8. (amended) A material as in claim 2 wherein the first metallized surface is vapor deposited aluminum.

9. (amended) A material as in claim 2 wherein the first metallized surface is vapor deposited nickel.

10. (amended) A material as in claim 2 wherein the first metallized surface is vapor deposited copper.

13. (amended) A film material as in claim 11 further comprising a first tie layer located between the heat sealable static dissipative polymer and [to] the metal foil, and a second tie layer located between the metal foil and the polymeric moisture barrier layer.

23. (amended) A low charge retaining film material for packaging that protects items from electrostatic discharge and corrosion said material comprising:

a) heat sealable static dissipative polymer;

b) a first tie layer attached to the heat sealable static dissipative polymer;

c) a polymeric moisture barrier [with] having two surfaces, a first metallized surface and a second nonmetallized surface said polymeric moisture barrier being attached to the first tie layer;

d) a second tie layer attached to the polymeric moisture barrier;

e) a metal foil attached to the second tie layer;

f) a low charge retaining coating attached to the metal foil.